

CLAIMS:

Sub E127
1. An outer membrane protein antigen from *P. aeruginosa* having a molecular weight in the range of about 60kDa to about 65kDa, as determined by SDS-PAGE.

2. The protein of claim 1 having the following N-terminal sequence:

Xaa Glu Glu Lys Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa
Val Val Xaa Asn Ala. (SEQ ID NO. 1)

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3. An outer membrane protein antigen from *P. aeruginosa* having a molecular weight in the range of about 60kDa to about 65kDa, as determined by SDS-PAGE, which has the following N-terminal sequence:

Xaa Glu Glu Lys Thr Pro Leu Thr Thr Ala Ala Xaa Ala Pro
Val Val Xaa Asn Ala. (SEQ ID NO. 2)

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Sub E137
4. An antigenic fragment of the protein defined in claim 1.

Sub D'
5. The antigenic fragment of claim 4 comprising the sequence:

Xaa Glu Glu Lys Xaa Xaa Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa
Val Val Xaa Asn Ala.

6. An antigenic fragment of the protein defined in claim 3.

Sub E 14
7. An antigen composition comprising the protein defined in claim 1.

8. An antigen composition comprising the antigenic fragment defined in claim 6.

9. The antigen composition of claim 7 which further comprises one or more other *P. aeruginosa* antigens.

10. A method of detecting or diagnosing *P. aeruginosa* comprising:

(a) bringing into contact the protein defined in claim 1 with a sample to be tested: and

(b) detecting the presence of antibodies to *P. aeruginosa*.

11. The method of claim 10 wherein the sample is a sample of mucous or saliva.

12. The method of claim 11 wherein the sample is from a subject suffering from cystic fibrosis.

13. The method of claim 10 wherein the detecting or diagnosing is carried out *in vitro*.

14. A method of detecting or diagnosing *P. aeruginosa* comprising:

(a) bringing into contact the antigenic fragment defined in claim 5 with a sample to be tested: and

(b) detecting the presence of antibodies to *P. aeruginosa*.

15. The method of claim 14 wherein the sample is a sample of mucous or saliva.

16. The method of claim 16 wherein said method is used to detect or diagnose *P. aeruginosa* in a subject suffering from cystic fibrosis.

17. The method of claim 16 wherein the detecting or diagnosing is carried out *in vitro*.

18. A kit for use in the detecting or diagnosing of *P. aeruginosa* comprising the protein defined in claim 2.

19. A kit for use in the detecting or diagnosing of *P. aeruginosa* comprising the antigenic fragment defined in claim 4.

20. A kit for use in detecting or diagnosing of *P. aeruginosa* comprising the antigen composition defined in claim 7.

21. A composition capable of eliciting an immune response in a subject comprising the protein defined in claim 1.

22. A composition capable of eliciting an immune response in a subject comprising the antigenic fragment defined in claim 5.

23. A composition capable of eliciting an immune response in a subject comprising the antigen composition defined in claim 8.

24. The composition of claim 21 which is a vaccine composition.

25. The composition of claim 22 which is a vaccine composition.

26. The composition of claim 23 comprising one or more adjuvants.

27. The composition of claim 24 comprising one or more adjuvants.

28. A method for the treatment or prophylaxis of *P. aeruginosa* infection in a subject, comprising the step of administering to the subject an effective amount of the protein defined in claim 1.

29. The method of claim 28 wherein the subject is suffering from cystic fibrosis.

30. A method for the treatment or prophylaxis of *P. aeruginosa* infection in a subject, comprising the step of administering to the subject an effective amount of the antigenic fragment defined in claim 4.

31. The method of claim 30 wherein the subject is suffering from cystic fibrosis.

32. A method for the treatment or prophylaxis of *P. aeruginosa* infection in a subject, comprising the step of administering to the subject an effective amount of the antigen composition defined in claim 21.

33. The method of claim 32 wherein the subject is suffering from cystic fibrosis.

34. A method for the treatment or prophylaxis of *P. aeruginosa* infection in a subject, comprising the step of administering to the subject an effective amount of the antigen composition defined in claim 23.

35. The method of claim 34 wherein the subject is suffering from cystic fibrosis.

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